

Date: Thursday, 2/23/2006 3:28:04 PM
 User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : BLADE
 Job Number : 25938
 Estimate Number : 10327
 P.O. Number : N/A
 This Issue : 2/23/2006 S.O. No. : N/A
 Prsht Rev. : NC
 First Issue : N/A Type : MACHINED PARTS
 Previous Run : 24595
 Part Number : D2741
 Drawing Number : D2741 REV B2 C
 Project Number : N/A
 Drawing Revision : B2
 Material : N/A
 Due Date : 3/2/2006 Qty: 40 Um: Each
 Written By : SEE COMMENT BELOW
 Checked & Approved By : SEE ABOVE USER & DATE
 Comment : Est D 00.11.15 Removed P/O turning - in house process E
 C

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M4130NB0500X03000 4130 Bar 0.5 x 3.0"



Comment: Qty.: 1.2118 f(s)/Unit Total: 48.4722 f(s)

4130 BAR 0.5 x 3.0"

Material: 4130 steel bar 0.50" x 3.00"

Batch: M19397

JF 06/03/16
 06.02.27

40

M100310 = 332"

2.0 BAND SAW

BAND SAW



Comment: BAND SAW

Cut blanks 13.850" long - +0.063" -0.000"

JF 06/03/16
 06.02.27

40

3.0 HAAS1

HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine per folio FA108

JF 06/03/16

J.L 06.03.01 40

4.0 QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

JF 06/03/16 J.L 06.03.01 40

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
















QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 2/23/2006 3:28:04 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: BLADE	
Job Number: 25938		Part Number: D2741	
Job Number: 			
Seq. #:	Machine Or Operation:	Description :	
5.0	QC8	SECOND CHECK	
			
Comment: SECOND CHECK		J.G 06/17/03 40	
6.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1	
			
Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Deburr 2-Bend per Dwg D2741		SB 06/03/20 40	
7.0	QC5	INSPECT WORK TO CURRENT STEP	
			06-03-20 40
Comment: INSPECT WORK TO CURRENT STEP			
8.0	PG	PURCHASING	
			
Comment: PURCHASING Issue P/O: 00000 846 Harden material as per Dwg D2741 Min. Ultimate Tensile Strength = 152 ksi (30-40 HRC) Min. Yield Tensile Strength = 141 ksi Test report or Certification required		AP 06/03/21	
9.0	PACKAGING 1	PACKAGING RESOURCE #1	
			
Comment: PACKAGING RESOURCE #1 Receive and Inspect for transit damage Ensure Test report or Certification attached		R 06/4/3 (40)	
10.0	QC5	INSPECT WORK TO CURRENT STEP	
			06-04-05 40
Comment: INSPECT WORK TO CURRENT STEP			
11.0	POWDER COATING	POWDER COATING	
			
Comment: POWDER COATING Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3		u.m 06-04-17 (40)	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
060405	11.0	Grind off carbon on the surface before powdercoat. permanent change.	EC	06.04.20		060405	060405

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 06/04/20
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 2/23/2006 3:28:04 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE

Job Number: 25938

Part Number: D2741

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

DL 06/04/18

(40)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: ST150

AP 06/04/19

(40)

14.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

SD 06/04/20

(40)

Job Completion



U 06-04-20

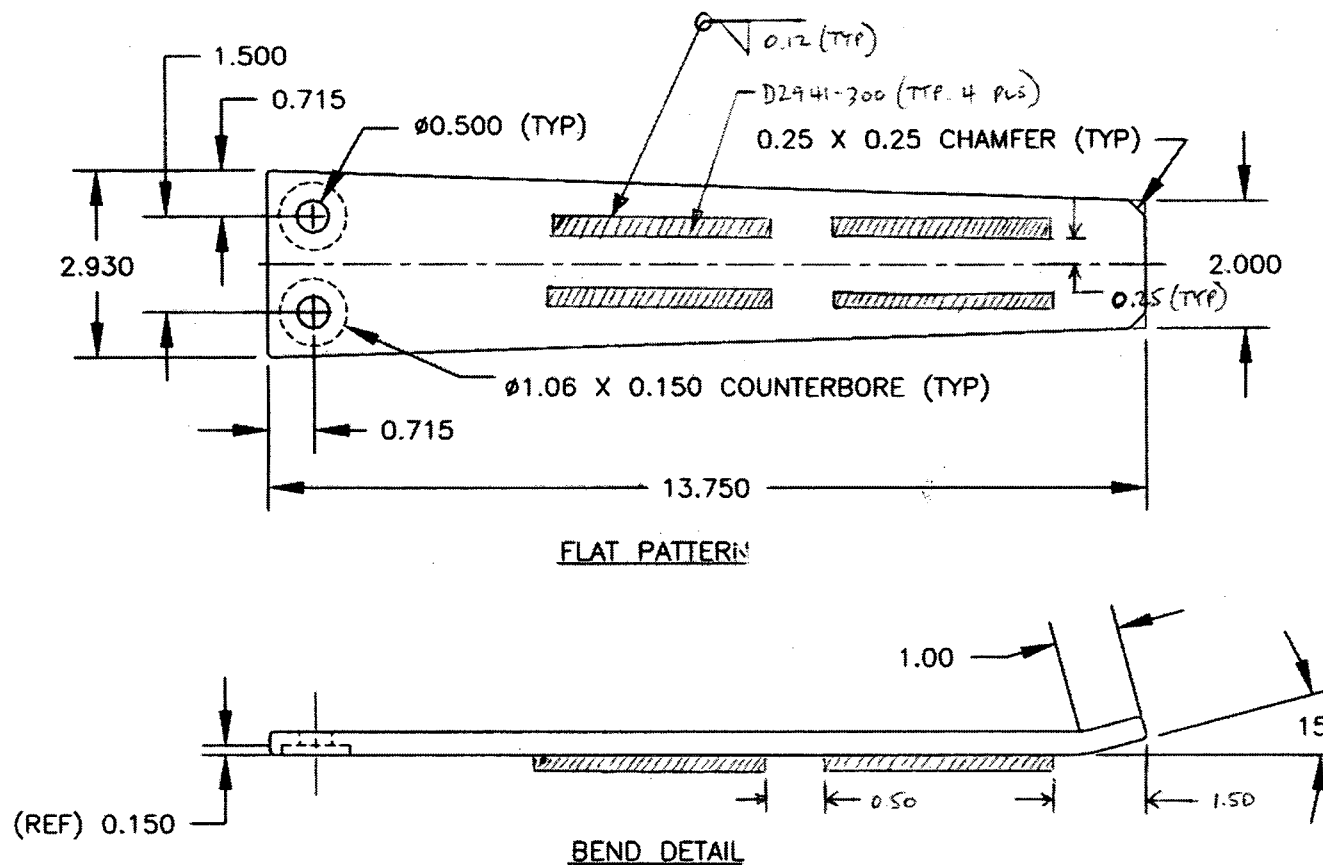
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



MATERIAL: AISI 4130 STEEL 0.375 THICK
 MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)
 MIN. YIELD TENSILE STRENGTH = 141 ksi
 FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
 TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 BREAK ALL SHARP EDGES 0.030 TO 0.060

#01.01.31
 CP 01.01.31
 TO MAKE D2741-041, WELD 2941-300 (4) AS SHOWN ABOVE. REMOVE POWDER COAT FROM SURFACE OF D2941-300
 TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-300

#01.02.25
 CP 01.02.26
 B2

RELEASED
 98-11-03 DS

DART

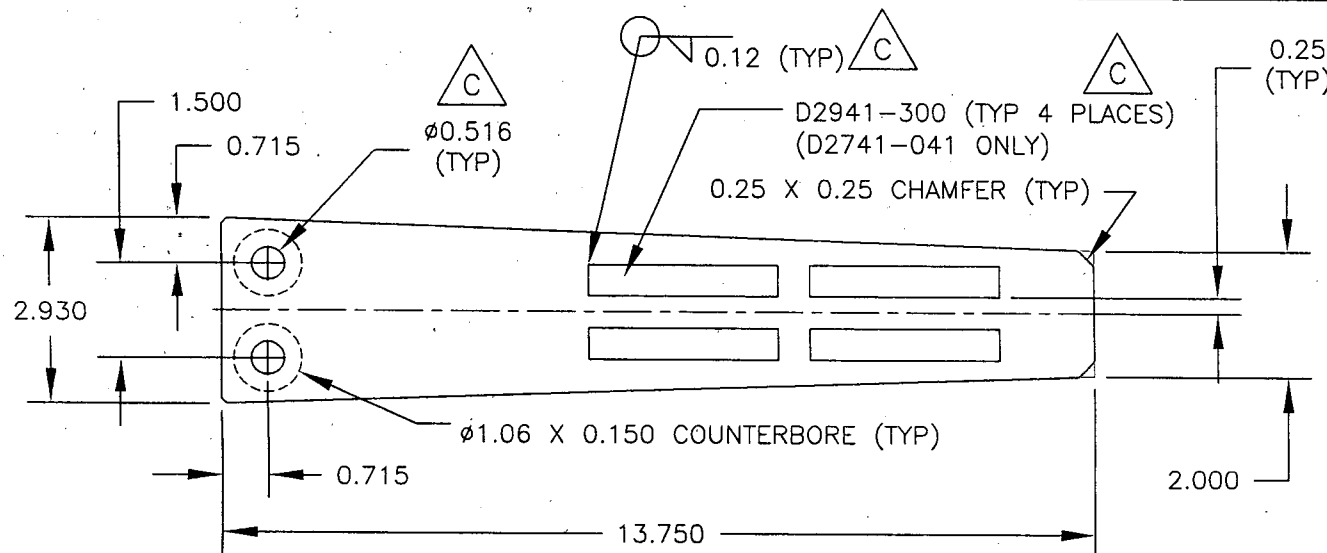


DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	REV. B
CHECKED	APPROVED	FARCHILD INTERNATIONAL AIRPORT, WA	SHEET 1 OF 1
DATE	TITLE	SCALE	
98.09.01	BLADE	1:3	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE C/SINK TO C'BORE	
B1	01.01.31	ADD 2941-041 / -043 OPTIONS	
B2	01.02.25	ADD ROCKWELL HARDNESS	

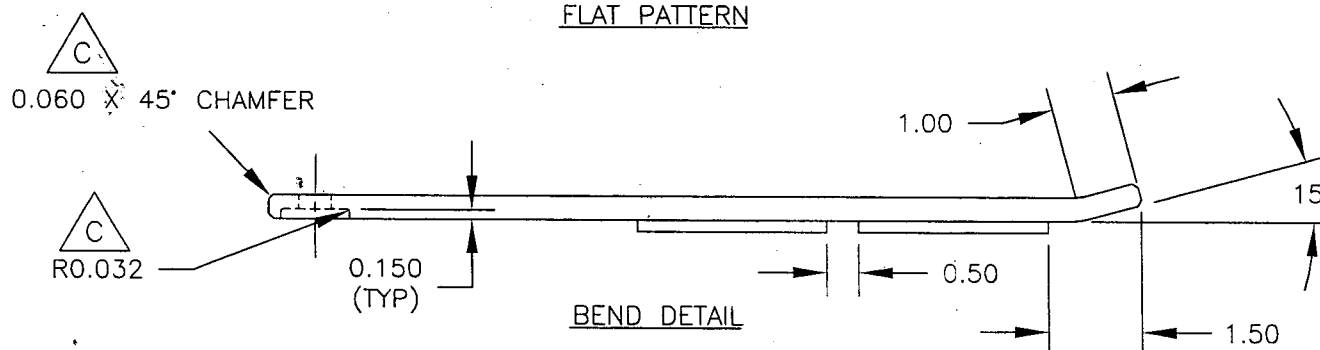
DART

RELEASED
06-02-07

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.
CHECKED <i>gh</i>	APPROVED <i>gh</i>	PORT HADLOCK, WA
DATE 06.01.12	DRAWING NO. D2741	REV. C
	TITLE BLADE	SHEET 1 OF 1
A	98.04.16	NEW ISSUE
B	98.09.01	CHANGE C'SINK TO C'BORE
C	06.01.12	LARGER HOLE, ADD RADIUS AND CHAMFER ADD -041/-043 OPTIONS
	SCALE 1:3	



FLAT PATTERN



BEND DETAIL

D2741 BLADE

- 1) MATERIAL: AISI 4130 STEEL 0.375 THICK
MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)
MIN. YIELD TENSILE STRENGTH = 141 ksi
- 2) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.030 TO 0.060
- 6) TO MAKE D2741-041, WELD D2941-300 (4) AS SHOWN ABOVE.
REMOVE POWDER COAT FROM SURFACE OF D2941-300
- 7) TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-300

Linda Lacelle

From: Peter Hum [phum@dartaero.com]
Sent: Tuesday, March 14, 2006 8:10 AM
To: 'Linda Lacelle'
Subject: RE: D2741 BLADES

Yes, this change will still apply to CHG 001 skidtubes.

-----Original Message-----

From: Linda Lacelle [mailto:llacelle@dartaero.com]
Sent: Tuesday, March 14, 2006 6:57 AM
To: Peter Hum (E-mail)
Subject: D2741 BLADES

Peter,

One thing I forgot to ask you in the eng meeting yesterday...you had given me a new drwg to drill the holes bigger in the blades..do we still do this??



RELEASE NOTE

GST No.: R105468102

OAK 73836-1

HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL: (905) 827-4171 FAX: (905) 827-7489

2009 WYECROFT ROAD, UNIT B
OAKVILLE, ONTARIO
CANADA L6L 6J4
TEL: (905) 827-7377 FAX: (905) 827-1380

QUEBEC DIVISION
7450 RUE VÉRITÉ STREET, ST. LAURENT, QUÉBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

03/31/2006

MM/DD/YYYY

PAGE: 1

1DAR01

BILL TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

SHIP TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

K6A 1K7

K6A 1K7

DATE SHIPPED	SHIP VIA	F.O.B.
03/31/2006		ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
846		COD

PART NO.	DESCRIPTION	UOM	QTY ORD	QTY SHPD	TEST RESULTS
D2741	BLADE	EA	40	40	
<p>Process Specifications: Procedure: 4161 HARDENED PER DWG. D2741 TO 152 KSI MINIMUM HRC 34-40 MATERIAL: 4130 B/N25938</p> <p><i>04-05</i></p> <div>100% HARDNESS TESTED 40 pcs → 36/37 HRC</div> <div>V.A.I.O. TH. 27 Q.C.</div>					

I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant thereto in accordance with the conditions of the contract / or purchase order.

ON BEHALF OF VAC AERO INTERNATIONAL INC.

Authorized Q.C. Inspector



VACUUM BRAZING . HEAT TREATING . SPECIAL PROCESSING . FURNACE EQUIPMENT



HEAT